

A University-Public Health Practice Linkage in Washington State

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This article describes a successful linkage between a school of public health and a local public health department.

In setting up a linkage between an academic institution and a local or state practice organization, several questions need to be answered before the details can be worked out. These include: Are there individuals in both organizations with the requisite interests, resources, and motivation ready to form new professional relationships? If appropriate local models of partnering do not exist, what methods, principles, and structures are best suited to the situation at hand? Which student learning opportunities can be incorporated into the project? What funding makes the most sense?

An Unexpected Opportunity

In 1991, these issues were unexpectedly posed for the School of Public Health and Community Medicine at the University of Washington. The precipitating event was the resignation of the Health Officer in Kittitas County, Washington. Before leaving, the health officer suggested to the three elected county commissioners who made up the Board of Health that they might find a replacement at the University of Washington, a two-hour drive away over the mountains. After several discussions and a face-to-face meeting, an

agreement was reached whereby the county would serve as a training site for students from the university, paying a fixed amount for their salary and expenses, and the university would provide Health Officer coverage for the county. A stipulation in the agreement permitted either co-signer, with 90 days notice, to terminate the contract, which was to be renewed annually. I was honored to be chosen as the Health Officer and enthusiastically began organizing a program for students from the university to contribute their expertise to the county while gaining valuable work experience.

The Setting

Kittitas County, immediately east of Seattle, stretches southeastward 80 miles from the crest of the Cascade Mountains to the Columbia River. The terrain is forested at the highest elevations, becoming dry grasslands and finally high desert as it slopes to the eastern boundary of the county. Hay is the largest cash crop, and government—local, state, and federal—is the largest employer. Of the 30,000 people living in the county, 15,000 live in Ellensburg, the county seat, which is also the location of Central Washington University. There are four other incorporated towns (the largest of which has a population of 2,000). The remaining population lives in unincorporated parts of the county.

ASPH REPORT

Students as Assistant Health Officers in Kittitas County

One of my first items of business was to arrange for an Assistant Health Officer, a preventive medicine resident usually in the second year of his or her MPH program at the University of Washington, to spend one day a week in Kittitas County. As the Health Officer, I usually make the same trip two or three times a month. We both attend the monthly Board of Health meetings and fulfill other professional obligations as they arise. During the course of their work in the county, the residents have opportunities to fulfill a number of their preventive medicine competency requirements. These include communicating with the media and the public, using computers for preventive medicine and public health purposes, interpreting laws and regulations relating to the health of a community, designing and operating a surveillance system, and designing and conducting an outbreak investigation, among others.

The agreement has been successful for both the university and the county. Nine preventive medicine residents have served as Assistant Health Officers for 6 to 12 months from 1991 to 2000. They have brought special expertise in family practice, internal medicine, emergency medicine, obstetrics, and law. All began with a general orien-

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tation to the activities of the health department, including accompanying departmental practitioners into the field. Within weeks, the residents identified special areas in which they could make their unique contributions.

Student Projects

Each Assistant Health Officer is expected to identify and take on a project of interest to herself or himself that also serves the needs of the health department's constituency. Some projects are begun during the initial orientation period, during which the residents visit and observe all activities and programs undertaken by members of the department. Others, such as outbreak investigations, are taken on as situations develop.

The first Assistant Health Officer had a law degree in addition to his MD. He decided to write a county ordinance to limit youth access to tobacco products. At that time, few states and especially few local jurisdictions had such ordinances in place. The project required contacting other jurisdictions with such ordinances in place or that were trying to get them approved. After many drafts and reviews with the county prosecuting attorney, the Assistant Health Officer presented the proposed ordinance to the Board of Health, and was asked to get a "reading" of the five incorporated cities and towns in the county. This involved getting onto the meeting agenda of each of their governing bodies, attending subsequent meetings if time ran out, and so on. The resident found this process instructive, although in the end, the Board of Health decided to wait until the state of Washington passed its law limiting youth access to tobacco products, scheduled to come before our state legislature the following year.



PHOTO: JAMES L. GALE

The second resident had a particular interest and ability in computing. He helped the department set up its first local area network, and provided tutorials to the 22 full- and part-time employees. Many of these individuals were trying to become computer literate in addition to their other responsibilities. Some found the machines intimidating and were grateful for the resident's time and expertise.

During the autumn of the third resident's year as Assistant Health Officer, one of the local family physicians reported that a patient of his had been hospitalized in Seattle with what turned out to be *E. coli* O157:H7-associated illness. Several telephone calls later we learned that we had an outbreak of this illness in a group of families attending a week-long Bible study group. Fortunately, only three people were hospitalized out of 17 identified cases, and no one died. The illnesses were traced to contamination of a salad by home-butchered beef. This outbreak provided opportunities for the resident to master several desirable competencies. In addition to investigating the

outbreak itself, including formulating a questionnaire that pinpointed the most likely vehicle of transmission, the resident (and I, for that matter) received plenty of practice in communication with members of the print and electronic media.

The next Assistant Health Officer was an emergency room physician making a transition to pursuing interests in international and domestic public health and issues of health equity. He wrote a position paper on these issues, which was circulated among selected citizens.

Our next resident, a family physician, worked with our newly designated Assessment Coordinator to help assemble and interpret data for the first health assessment of Kittitas County. She assembled, analyzed, and interpreted data for the report and was tireless in making presentations of the data to community groups.

An indoor air quality issue at a local high school provided ample opportunity to demonstrate the next resident's interest in environmental health in the context of a highly participatory community process.

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An Assistant Health Officer Intervenes to Promote School Health

In 1996, a repair to the roof over several classrooms at a public school had not been completed before a heavy snowfall. Water seeped into and under the building, providing ample opportunity for the growth of mold. Three faculty members developed respiratory problems and were no longer able to work in their classrooms. Children who rotated through the classrooms were less severely affected.

After these illnesses were made known to the health department, a lengthy community process was begun, along with a series of requests for help from outside experts. Teachers, parents, school administrators, and townspeople were involved. Technical assistance was received from the Washington State Department of Health, the University of Washington Department of Environmental Health field team, the Occupational Medicine Clinic, and the National Institute for Occupational Safety and Health (NIOSH).

In extensive public meetings, some argued for closing the school as unsafe, while others advocated repairing the building and drainage and replacing the air handling unit serving the classrooms of the affected wing of the school. (This unit drew its air from the crawl space where conditions had favored the growth of mold.)

Following two visits from NIOSH field teams, air sampling for microbes, repeated inspections by the Washington State Departments of Health and Labor and Industries, several remedial efforts were put into place. These included expenditures of more than \$200,000 to replace the air handling units with individual classroom units; improvements to the building drainage; establishment of regular surveil-



lance for water incursions; and the development of clean-up procedures to be used in the event water was detected in the building or in crawl spaces under the building. These efforts were declared sufficient by all consulting agencies, and the process was commended by the Washington Department of Labor and Industries, whose job is to safeguard working conditions for all workers in the state. Although no single cause of illness was identified, teachers were able to return to their classrooms in the affected wing of the school, and all school activities were resumed. Many of the participating parties expressed their appreciation for the patience and objectivity of the Assistant Health Officer who coordinated this process.

Where We Are Today

Our two current preventive medicine residents (sharing the rotation) have also become importantly engaged in the county. One is setting up a database and surveillance system for complaints and follow-up investigations for the more than 100 food establishments regularly inspected in the county, while the other has already investigated an

outbreak of Norwalk-like viral gastroenteritis traceable to a fast-food restaurant in Ellensburg. An emergency room physician at the only hospital in Kittitas Valley recognized the outbreak and reported it to us. The restaurant staff and its owners were very cooperative, closing the restaurant immediately and assisting with the investigation. The outbreak, which affected an estimated 187 people, was traced to an ill food handler, who had presumably contracted his illness in the community. No other restaurants in the chain in Washington State reported outbreaks at that time.

In summary, this collaborative arrangement between Kittitas County and the University of Washington School of Public Health and Community Medicine has proven mutually beneficial over the 10 years of its existence. Its success has depended on the particular interests of the students and faculty involved as well as the willingness of health department workers to welcome and reorient new preventive medicine residents each year.

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